Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of:	)	
	)	
Preserving the Open Internet	)	GN Docket No. 09-191
	)	
Broadband Industry Practices	)	WC Docket No. 07-52

REPLY COMMENTS OF MANUFACTURER COALITION

The D.C. Circuit's new order in the *Comcast* case[1] greatly complicates the Commission's ability to adopt network neutrality regulations, including the "no discrimination" rule it has proposed, even if the agency were to decide that it would like to do so. The Court's order complicates the ability to adopt such regulations since it rejects each of the statutory bases upon which the Commission heretofore has sought to justify such regulation.

While the *Comcast* order calls into question whether the Commission has jurisdiction to adopt *any* network neutrality regulations, these Reply Comments, which deal with one specific regulation – the FCC's proposed "no discrimination" rule - are relevant even if the agency somehow established that a specific statute gives it jurisdiction to adopt net neutrality rules of some type. This is because a specific net neutrality rule whose cost outweighs the benefit almost certainly would be deemed to be unlawfully arbitrarily and capricious under the Administrative Procedure Act even if the FCC had statutory authority to adopt net neutrality rules, and because the record here makes clear that the proposed "no discrimination" rule's cost – its stultifying effect on the incentive to invest in broadband networks - would outweigh any conceivable benefit. Of course, a regulation reducing the incentive to invest in broadband networks would harm the high tech manufacturing industry of which our companies are a part.

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1 *Comcast v. FCC*, No. 08-1291 (D.C. Cir., decided April 6, 2010).

We submitted two types of evidence in our Opening Comments to support our belief that investment in broadband networks could decline materially if the proposed "no discrimination" rule were adopted. First, we showed that the proposed rule incorporates an extremely broad restriction on the business practices of ISPs by prohibiting them from implementing a nearly infinite variety of socially beneficial business models which require as a practical matter that some web content or services be treated differently than other web content in violation of the proposed rule. We illustrated this fact by discussing four concrete businesses that apparently would be off limits to ISPs.[2] Second, we cited 15 studies predicting a material decline in investment if such a rule were implemented.[3] We also know of four additional studies reaching this same conclusion that have been published since our Opening Comments were filed.[4]

Importantly, while some 10 proponents of the proposed "no discrimination" rule responded in their respective Opening Comments to the Commission's request to explain why the proposed rule would have no serious negative impact on network investment,[5] just one– Free Press – discussed the impact on investment in more than a superficial way. Arguments by the others were presented in such a sketchy manner that they cannot meaningfully be evaluated.[6]

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2 Manufacturer Coalition Comments at 4-8.

3 *Id.*at 3 n. 4.

4 *See L.F*. Darby and J.P. Fuhr, "Innovation and Nat. Broadband Policies: Facts, Fiction and Unanswered Questions," Am. Consumer Inst. Center for Citizen Research (Mar. 2, 1010); R.W. Crandall and H.J. Singer, "The Economic Impact of Broadband Investment at 51-53 (Feb. 23, 2010), avail. at www.ncta.com/DocumentBinary.aspx?id=880*;* L.F. Darby, J.P Fuhr, and S.B. Pociask, "The Internet Ecosystem: Employment Impacts of Nat. Broadband Policy," Am. Consumer Inst. Center for Citizen Research (Jan. 28, 2010); D.L. Weisman and R.B. Kulick, "Price Discrimination, Two-Sided Markets and Net Neutrality Regulation" (Mar. 24, 2010), avail at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1582972.

5 Notice at ¶¶ 111-113.

6 *See* Comments of Center for Democracy and Technology at 28-9; Comments of Data Foundry at 9; Comments of Greenlining Institute at 2-3; Comments of Ad Hoc Telecom. Users Committee at 14-15; Comments of Open Internet Coalition at 30-31; Comments of Public Interest Commenters at 30-31; Comments of XO Communications at 12; Comments of Hispanic Media Coalition at 10; and Comments of successful.com at 5.

Moreover, although Free Press devoted several pages of its Opening Comments to its attempt to show that the proposed rule would not harm investment, none of Free Press's arguments has merit as we show below.

Before discussing each of Free Press's arguments, however, we want to make two more important points. First, unlike Free Press, several leading proponents of a "no-discrimination" rule have *admitted* that such a rule could produce a material decline in network investment.[7] Second, we note that, although the proposed rule would prohibit ISPs from engaging in a huge number of business types by outlawing all discrimination (rather than unreasonable discrimination) against Internet content and service providers, Free Press does not attempt to analyze the impact on investment that would result from prohibiting ISP involvement in all of these myriad business types.[8] Instead, it claims to show only that investment in ISP networks should not suffer by outlawing ISP participation in only <u>one</u> of those many businesses – the

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[7] See, e.g., B.M. Frischman and B. van Schewick, "Network Neutrality and the Economics of an Info. Superhighway: A Reply to Prof. Yoo", 47 Jurimetrics J. 383 at 423-425 (2007) (concluding that the rule could lead to "incentives to invest in infrastructure [that are] suboptimal", and stating that the government should counter these negative investment incentives through one of more government spending programs, such as subsidizing new investment or providing tax incentives to undertake such investment).

[8] Not only would the FCC's proposed rule apparently prohibit ISPs from any involvement in the four concrete businesses we discussed in our opening Comments, other parties described in their own opening Comments many other businesses that apparently also would be off limits to ISPs under the proposed rule For example, cell phone ISPs apparently would be forced to close down their Internet "app stores" (GSM Ass'n Comments at 19), to stop re-formatting Internet content so that it can be viewed on cell phone screens (David Clark *et al.* Comments at 15-16), and to discontinue working with the developers of specialized mobile devices that connect to the Internet for real-time navigation information or home security or medical diagnostics or remote monitoring of utility sites (AT&T Comments at 152-53). Similarly, it appears that ISPs would be required to stop providing peering arrangements (Comcast Comments at 40), IP multicast arrangements (AT&T Comments at 111), and a default home page for their Internet access customers (*Id.* at 106-07). And it appears that General Motors' OnStar accident notification service, which the FCC praised last month in its National Broadband Plan, would become unlawful under the proposed no-discrimination rule given that the ISP providing the communications link between OnStar-equipped vehicles and the OnStar network center has contracted with GM to provide that link on terms different than it provides communications links to other Internet application providers. *See* Fed. Commun. Comm'n, "Connecting America: The National Broadband Plan at 18 (rel. Mar. 16, 2010) (referring to OnStar service as a "pioneering example of machine-to-machine communication for consumer use").

business arguably now dominated by Akamai[9] of providing data delivery prioritization to online video and other high bandwidth Internet content, a prohibition on discrimination that would be much narrower than the broad prohibition on all discrimination actually proposed. We suspect that Free Press may have chosen to analyze the negative impact of a narrower prohibition on discrimination than the one actually proposed because it recognizes that prohibiting ISP involvement in the full panoply of business types that would be off limits to ISP involvement under the proposed rule might well reduce network investment.

We focus now on the arguments made by Free Press in its effort to show that a rule banning ISPs from the single business of providing data prioritization service would not harm future investment in ISP networks. Free Press's first argument is that prohibiting ISP participation in that one business would reduce future investment by only an insignificant amount because it is highly unlikely that annual ISP revenue from providing data prioritization service would be more than 0.5 percent of the ISP industry's total Internet access service revenue.[10]

In fact, ISP data prioritization revenue would be at least quadruple the percentage of total industry revenue that Free Press assumes (2.0 percent rather than 0.5 percent) using Free Press's own methodology to make this calculation. Free Press concludes that the ISP industry's annual revenue from providing data prioritization service would be no more than 0.5 percent of the total revenue based on its assumptions that the industry's yearly prioritization revenue could not exceed $1 billion and that the industry's total revenue from ISP service in 2010 will be $200 billion (*i.e.*, $ 1 billion ÷ $200 billion = 0.5 percent). But Free Press has both overstated the size

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9 Akamai's market share is roughly 67 percent. *See* Manufacturer Coalition Comments at 5.

10 Free Press Comments at 19-20.

of the denominator (ISP revenues of $200 billion) and understated the size of the numerator (ISP data prioritization revenue no higher than $1 billion). With regard to the denominator, the industry's 2010 revenue from the provision of Internet access service almost certainly will be less than $73 billion, slightly more than one-third of what Free Press assumes, since there are 101 million subscribers to broadband Internet access service[11] and since an ISP almost certainly earns no more than an average of $720 in revenue per year from an Internet access service customer (*i.e.*, $60 per month) (*i.e.,* 101 million x $720 = $72.7 billion). With regard to the numerator, Free Press's assumption that ISPs could not earn more than $1 billion in annual revenue is based entirely on the fact that 2008 data prioritization revenue may have been only $800 million.[12] But demand for data prioritization service is growing rapidly due to a dramatic increase in the amount of data intensive content that benefits from prioritization, such as video, and experts now project that data prioritization revenue will experience a compound annual growth rate between 2008 and 2013 of at least 30.5 percent, reaching at least $1.4 billion by 2012 and continuing to grow fast after that date.[13]

Free Press also is wrong in assuming that additional network investment would be insignificant even if it were correct that ISPs could not earn more than $1 billion in annual revenue from the prioritization business as it claims. Present participants in this rapidly growing market invested more than $500 million in the two year period ending in mid-2009 – a very large

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11 *See* Fifth Section 706 Report, 23 FCC Rcd. at 9631-32 (2008).

12 Free Press Comments at 20.

13 *See*, *e.g*., D. Rayburn, EVP for StreamingMedia.com, Webcast presented May 20, 2009, webcast titled "Current State of the CDN Market: avail. at http://www.glgroup.com/webcast.aspx?title=GLG+Webcast%3a+Current+State+of+the+CDN+Market+-+May+20%2c+2009+at+2%3a00+PM+ET&date=5%2f20%2f2009&presenter=Dan+Rayburn&src=GLG+Webcast+Current+State+of+the+CDN+Market+(EVENT+144209).flv; "Making sense of online video market projections", Fierce Online, July 15, 2009, avail at http://www.fierceonlinevideo.com/story/making-sense-online-video-market-projections/2009-07-15

amount of investment considering that industry-wide prioritization revenue was less than $800 million in 2008.[14] Akamai alone projected nine months into its present fiscal year that its own capital investment during the present fiscal year will be $110 million, which is 13 percent of its projected revenue of $850 million for the year.[15]

There likewise is no validity in Free Press's argument that prohibiting ISPs from providing data prioritization service would not harm investment because any growth in aggregate ISP revenue from providing data prioritization service would be offset by a decline in monthly subscription revenue from Internet access service.[16] Free Press concludes that declining monthly access service subscription revenue would offset any revenue increase coming from ISP provision of data prioritization service based on its assumption that many Internet access service customers would likely cancel their subscriptions out of frustration with their Internet experience because growth in the amount of data prioritization necessarily causes non-prioritized traffic to run more slowly.[17] But it is not true that data prioritization necessarily causes non-prioritized traffic to run more slowly as Free Press itself acknowledges elsewhere when it admits that even a huge increase in the amount of data caching, the method by which substantially all data prioritization is provided, would <u>not</u> cause non-prioritized traffic to reach ISP Internet access customers more slowly.[18]

Nor does the fact that AT&T increased network investment faster than Verizon in absolute terms during 2007 and 2008 when the AT&T/BellSouth merger order barred AT&T, but

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[14] D. Rayburn, EVP for StreamingMedia.com, Webcast presented May 20, 2009, *supra.*

[15] *See* Akamai Technologies, Inc. Form 10-Q for the quarter ending Sept. 30, 2009 at 38.

[16] Free Press Comments at 19, 21.

[17] *Id.*

[18] *Id.* at 20.

not Verizon, from providing data prioritization service show that permanently barring ISPs from this business would have no negative effect on network investment as Free Press claims.[19] First, the fact that Free Press's own numbers show that two ISPs comparable in size to AT&T-- Comcast and Time Warner – increased network investment during 2007 and 2008 in absolute terms far more rapidly than AT&T,[20] undermines Free Press's claim that AT&T's more rapid increase in investment *vis-à-vis* Verizon during those two years shows that barring ISPs from providing data prioritization service would not slow network investment. Moreover, if comparing the size of increased network investment by AT&T and Verizon during 2007 and 2008 were relevant to the question of whether network investment might decline if ISPs were barred from providing data prioritization service (which it is not), comparing the rate of increased investment as a percentage of company revenue would be more relevant than comparing the rate of investment increase in absolute dollars, and on that measure Verizon's capital spending growth (17.6%) was larger than AT&T's during this two year period according to Free Press's own data (16.4%).[21] Finally, the negative impact on investment caused by the actual rule proposed here – a rule making it unlawful for ISPs to provide each of numerous categories of service as discussed on page 2 above -- would in any event be far greater than the negative impact on investment caused by the hypothetical rule that Free Press purports to examine –a rule making it unlawful for ISPs to enter the data prioritization business alone.

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19 Free Press Comments at 24-25.

20 *Id.* at 26 Fig 3 (reporting that AT&T's capital spending increased 10.2 percent during that two year period while the capital spending of Comcast and Time Warner Cable increased 33.5 percent and 27.0 percent, respectively). Free Press's own data shows that many smaller ISPs also increased capital spending during that period faster than did AT&T. *Id*. at 26, Fig. 3.

21 *Id* at 27, Fig. 4.

CONCLUSION

Despite the FCC's request for analysis and discussion by all parties of the extent to which adoption of the proposal to outlaw any type of ISP discrimination against any Internet content and application provider would reduce the incentive to invest in broadband networks, only one supporter of the proposal – Free Press – did so. And while Free Press attempts to show that the proposed rule would not harm the investment incentive, each argument it makes in an effort to support that conclusion lacks merit.

Respectfully submitted,

ADC Telecommunications, Inc.
BTECH Inc.
Berry Test Sets, Inc.
Camiant, Inc.
CBM of America, Inc.
Condux International, Inc.
Enhanced Telecommunications, Inc.
FiberControl
Go!Foton, fka NSG America, Inc.
Independent Technologies, Inc.
MetroTel, Inc.
MRV Communications, Inc.
Optical Zonu Corp.
Prysmian Communications Cables and Systems USA, LLC
Sheyenne Dakota, Inc.
SNC Manufacturing Co.
Sunrise Telecom, Inc.
Suttle Apparatus Corp.
Telesync, Inc.

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